

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/643,041	08/18/2003	Tien-yau Luh	08919-082001	3077	
26161	7590 12/13/2005		EXAM	EXAMINER	
FISH & RICHARDSON PC P.O. BOX 1022		GARRETT, DAWN L			
	JIS, MN 55440-1022		ART UNIT	PAPER NUMBER	
	·		1774		

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)	
Office Action Commence	10/643,041	LUH ET AL.	
Office Action Summary	Examiner	Art Unit	
TI MANUAL DATE CUI	Dawn Garrett	1774	
The MAILING DATE of this communication a Period for Reply	ppears on the cover sheet with	h the correspondence a	ddress
A SHORTENED STATUTORY PERIOD FOR REP WHICHEVER IS LONGER, FROM THE MAILING - Extensions of time may be available under the provisions of 37 CFR after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory perions after the reply within the set or extended period for reply will, by state Any reply received by the Office later than three months after the main earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNIC 1.136(a). In no event, however, may a report will apply and will expire SIX (6) MONT ute, cause the application to become ABA	ATION. ply be timely filed (HS from the mailing date of this ANDONED (35 U.S.C. § 133).	•
Status			
Responsive to communication(s) filed on <u>05</u> This action is FINAL . 2b)⊠ The 3)□ Since this application is in condition for allow closed in accordance with the practice under	nis action is non-final. vance except for formal matte	•	e merits is
Disposition of Claims			
4) ☐ Claim(s) 1-39 is/are pending in the application 4a) Of the above claim(s) 5,11-19,24 and 30- 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1-4,6-10,20-23 and 25-29 is/are rejection is/are objected to. 8) ☐ Claim(s) are subject to restriction and	-39 is/are withdrawn from con	isideration.	
Application Papers			
9) The specification is objected to by the Examin 10) The drawing(s) filed on is/are: a) a		v the Evaminer	
Applicant may not request that any objection to the			
Replacement drawing sheet(s) including the corre			FR 1.121(d).
11)☐ The oath or declaration is objected to by the	Examiner. Note the attached	Office Action or form P	TO-152.
Priority under 35 U.S.C. § 119			
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority docume 2. Certified copies of the priority docume 3. Copies of the certified copies of the priority docume application from the International Bure * See the attached detailed Office action for a list	ents have been received. ents have been received in Apriority documents have been reau (PCT Rule 17.2(a)).	oplication No received in this Nationa	l Stage
Attachment(s) 1) Notice of References Cited (PTO-892)	0 □	(DTO 440)	
 Notice of References Cited (P10-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/0 Paper No(s)/Mail Date 	Paper No(s)	ımmary (PTO-413) /Mail Date formal Patent Application (PT _·	O-152)

Application/Control Number: 10/643,041 Page 2

Art Unit: 1774

DETAILED ACTION

1. This action is responsive to the request for reconsideration dated December 5, 2005.

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

- 2. The last species under consideration is allowable. That species is the following: Formula I where Ar is aryl, B is aryl, R_1 is aryl, and R_2 is hydrogen.
- 3. The next species under consideration has been selected by the examiner and is the following:

Formula I where Ar is aryl, B is aryl, R_1 is hydrogen and R_2 is alkyl.

Claims 5, 11-19, 24, and 30-39 are withdrawn as non-elected claims. Claims 1-4, 6-10, 20-23, and 25-29 are under consideration.

- 4. The rejection of claims 1-12 under 35 U.S.C. 103(a) as being unpatentable over Lee et al., J. Am. Chem. Soc., 122, p. 4992-4993 is withdrawn due to applicant's arguments regarding Lee et al. formula 11.
- 5. The rejection of claims 20-31 under 35 U.S.C. 103(a) as being unpatentable over Mori et al. (US 5,281,489) in view of Lee et al., J. Am. Chem. Soc., 122, p. 4992-4993 is withdrawn due to applicant's arguments regarding Lee et al. formula 11.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

Application/Control Number: 10/643,041 Page 3

Art Unit: 1774

international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-4 and 6-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Oshiyama et al. (US 2003/0091860 A1). Oshiyama et al. discloses the following compound on page 26:

$$C_dH_d(t)$$

This compound anticipates the compound of claims 1-4 and 6-10.

Claim Rejections - 35 USC § 103

- 8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 9. Claims 20-23 and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oshiyama et al. (US 2003/0091860 A1). Oshiyama teaches the following compound as a fluorescent agent (see page 26):

Application/Control Number: 10/643,041 Page 4

Art Unit: 1774

Oshiyama teaches layers such as hole injecting layer, hole transporting layer, electron injecting layer, electron transporting, and light emission layers may constitute an EL element (see par. 118 and 134). Oshiyama teaches the hole transporting layer may comprising a fluorescent compound (see par. 130), although Oshiyama fails to teach specifically the furyl containing agent (shown above) in a hole transporting layer. It would have been obvious to one of ordinary skill in the art to have included the taught furyl-containing compound in the hole transporting layer, because Oshiyama generally teaches the compound is a fluorescent agent and that a fluorescent agent may be included in the hole transporting layer.

Response to Arguments

- 10. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.
- 11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571) 272-1523. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached at (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1774

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dawn Garrett
Primary Examiner
Art Unit 1774

D.G. December 9, 2005